

# Measure Up

Spring 2010

Assessment news for fourth-grade teachers



## Did you know?

- **NAEP 2011 in 4th grade will include assessments in reading and mathematics.**
- **State and district mathematics results for NAEP 2009 have been released.**
- **Results for the NAEP 2009 reading assessment will be released soon.**

## Thank You!

Thank you to all schools that participated in the NAEP 2010 assessment and helped to make it a success. NAEP 2010 included assessments in civics, geography, and U.S. history. It also included a mathematics special study at grades 4 and 8, and a writing computer-based pilot at grades 8 and 12.

The NAEP 2010 grade 4 assessment was offered to a sample of 27,000 public school students at 450 different schools.

## NAEP 2011: Mathematics and Reading

The mathematics framework calls for questions based on five mathematics content areas: number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra. Questions are also categorized according to mathematical complexity. Mathematical complexity describes what level of cognitive demand (low, moderate, or high) is required for students to answer each question correctly.

The reading framework specifies that two types of texts be included on the assessment: literary texts and informational texts. The framework also specifies that vocabulary knowledge will be assessed in the context of a passage. Vocabulary items function both as a measure of passage comprehension and as a test of readers' specific knowledge

of the word's meaning as intended by the passage author. The framework also specifies three cognitive targets, or behaviors and skills, for items from both literary and informational texts: Locate/Recall, Integrate/Interpret, and Critique/Evaluate.

NAEP assessments include both multiple-choice and open-ended questions. After each assessment, select NAEP questions are released. These questions are available on the NAEP Questions Tool at <http://nces.ed.gov/nationsreportcard/itmrlsx>, and provide teachers and parents with samples of questions and data on how students performed on each question. Teachers may use released NAEP questions in their classrooms to see how their students compare to the nation or their state on specific items.



The distribution of items across the mathematical content areas for 4th grade is as follows:

40% Number Properties and Operations

20% Measurement

15% Geometry

10% Data Analysis, Statistics, and Probability

15% Algebra

## Sample Mathematics Items

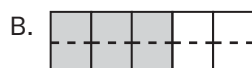
### Sample Item

$$\square - 8 = 21$$

What number should be put in the box to make the number sentence above true?

### Sample Item

Which picture shows that  $\frac{3}{4}$  is the same as  $\frac{6}{8}$ ?



### Sample Item

14, 26, 38, \_\_\_\_\_, \_\_\_\_\_

The numbers in the pattern above are increasing by 12. Which of these numbers is part of the pattern?

- A. 52
- B. 58
- C. 60
- D. 62

## Sample Reading Items

After reading passages, students respond to several questions. Sample items from two passages are presented below.

### A Brick to Cuddle Up To

1. You would probably read this article if you wanted to know how the colonists
  - A. cooked their food
  - B. traveled in the winter
  - C. washed their clothes
  - D. kept warm in cold weather
2. After reading this article, would you like to have lived during colonial times? What information in the article makes you think this?
3. Pretend that you are an early American colonist. Describe at least three activities you might do during a cold winter evening. Be specific. Use details from the article to help you write your description.
4. Does the author help you understand what colonial life was like? Use examples from the article to explain why or why not.

### How the Brazilian Beetles Got Their Coats

1. The beetle chooses green and gold for the colors of her coat because they are
  - A. unusual colors
  - B. her favorite colors
  - C. the colors the rat wanted
  - D. the colors of her world
2. Do you think that the beetle is being sneaky by not telling the rat she has wings? Use information from the story to explain why or why not.
3. Choose someone you know, have read about, or have seen in a movie or television show who is like the rat or the beetle. Explain how that person or character is like the rat or the beetle.



To access the  
NAEP frameworks,  
please visit  
<http://www.nagb.org>  
and select  
"Publications."

Reading passages are drawn from three different types of literary text: fiction, literary nonfiction, and poetry.

Informational texts are classified into three broad categories: exposition, argumentation and persuasive text, and procedural text and documents.

# What is the Nation's Report Card?

The Nation's Report Card informs the public about the academic achievement of elementary and secondary students in the United States. Report cards communicate the findings of the National Assessment of Educational Progress (NAEP), a continuing and nationally representative measure of achievement in various subjects over time.

For over three decades, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. By collecting and reporting information on student performance at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement and relevant variables is collected. The privacy of individual students and their families is protected, and the identities of participating schools are not released.

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## If you want to...

## Visit...

<b>Learn</b> more about NAEP results	The Nation's Report Card at <a href="http://nationsreportcard.gov">http://nationsreportcard.gov</a>
<b>View</b> NAEP data for a particular state or contact your NAEP State Coordinator	The National Center for Education Statistics at <a href="http://nces.ed.gov/nationsreportcard/states">http://nces.ed.gov/nationsreportcard/states</a>
<b>Access</b> specific results for a grade level, subject, jurisdiction, and/or student groups	The NAEP Data Explorer at <a href="http://nces.ed.gov/nationsreportcard/naepdata">http://nces.ed.gov/nationsreportcard/naepdata</a>
<b>Find</b> information regarding the types of questions used on NAEP assessments or view subject-specific questions	The NAEP Questions Tool at <a href="http://nces.ed.gov/nationsreportcard/itmrlsx">http://nces.ed.gov/nationsreportcard/itmrlsx</a>
<b>Download</b> a Sample Questions Booklet that contains sample test questions for the upcoming and previous assessments	The National Center for Education Statistics at <a href="http://nces.ed.gov/nationsreportcard/about/booklets.asp">http://nces.ed.gov/nationsreportcard/about/booklets.asp</a>
<b>Learn</b> more about NAEP frameworks and how policy is drafted for each NAEP assessment	The National Assessment Governing Board at <a href="http://www.nagb.org">http://www.nagb.org</a>
<b>Offer</b> a comment or suggestion on NAEP	The National Center for Education Statistics mailbox at <a href="http://nces.ed.gov/nationsreportcard/contactus.asp">http://nces.ed.gov/nationsreportcard/contactus.asp</a>